

IN THE CLAIMS

1. (currently amended) A method for forming a network including a plurality of communication devices, a wire network for allowing a plurality of communication transmissions between the communications devices, and at least one connectivity device connected to the wire network, said method comprising the steps of:

utilizing the connectivity device to perform a repeater function including regenerating a communication signal such that the distance between the communications device is extended;

utilizing the connectivity device to perform a routing function including routing communication transmissions by the communications devices through the wire network; and

communicating, by a central processing unit located within the connectivity device, with a network hub device located within the connectivity device and a network switch device located within the connectivity device, wherein the network hub device performs a hub function including interconnecting the communication devices by bringing segments of the wire network together, and the network switch device performs a switching function including reducing communication collisions by providing communication transmissions from the communications devices with independent paths through the wire network; and

integrating, within the connectivity device, a first function set and a second function set, wherein the first function set includes a print function other than the hub function, the switching function, the routing function, and the repeater function, and the second function set includes at least one of the hub function, the switching function, the routing function, and the repeater function.

2. (previously presented) A method in accordance with Claim 1 further comprising the steps of:

connecting one of the connectivity devices to a communications device; and

connecting the communications device to the wire network utilizing the connectivity device.

3. (currently amended) A method in accordance with Claim 1 further comprising the step of configuring the wire network to include at least one of the network hub device, the network switch device, a network repeater device and a network router device.

4. (original) A method in accordance with Claim 1 further comprising the step of utilizing the connectivity device in a wire network having a topology of at least one of a daisy-chain configuration, a ring configuration, and a star configuration.

5. (currently amended) A method in accordance with Claim 1 further comprising the step of utilizing the connectivity device to enable Single Point of Connect (SPOC) capability within the wire network.

6. (original) A method in accordance with Claim 1 further comprising the step of utilizing the connectivity device as at least one of a network fault tolerant device and a network fault tolerant management device.

7. (currently amended) A network system comprising:

a plurality of communications devices configured to communicate with each other;

a wire network configured to interconnect said communications devices and allow a plurality of communication transmissions between said communication devices;

a network connectivity device connected to said wire network, said network connectivity device configured to:

perform a repeater function including amplifying communication transmissions such that the distance between said communications device is extended; and

perform a routing function including routing communication transmissions through said wire network; and

a central processing unit located within said network connectivity device and configured to communicate with a network hub device located within said network connectivity device and a network switch device located within said network connectivity device, wherein said network hub device configured to perform a hub function including interconnecting said communication devices by bringing segments of said wire network together, said network switch device configured to perform a switching function including reducing communication collisions by providing communication transmissions from said communications devices with independent paths through said wire network, and said network connectivity device configured to integrate a first function set and a second function set, wherein the first function set includes a print function other than the hub function, the switching function, the routing function, and the repeater function, and the second function set includes at least one of the hub function, the switching function, the routing function, and the repeater function.

8. (currently amended) A system in accordance with Claim 7 wherein each said communication device is connected to said wire network using ~~one of said network connectivity devices~~device.

9. (previously presented) A system in accordance with Claim 7 wherein said network system further comprises at least one of the network hub device, the network switch device, a network repeater device, and a network router device.

10. (original) A system in accordance with Claim 7 wherein said wire network comprises a means suitable for carrying data and communication transmissions.

11. (currently amended) A system in accordance with Claim 7 wherein said network connectivity device configured to operate when said wire network uses a topology of at least one of a daisy-chain configuration, a ring configuration, and a star configuration.

12. (currently amended) A system in accordance with Claim 7 wherein said network connectivity device further configured to enable SPOC capability within said network system.

13. (currently amended) A system in accordance with Claim 7 wherein said network connectivity device further configured to function as at least one of a network fault tolerant device and a network fault management device.

14. (currently amended) A network connectivity device comprising a central processing unit connected to a electronic storage device, a hub module, a switch module, a repeater module and a router module, said connectivity device connected to a wire network interconnecting a plurality of communication devices, said connectivity device configured to:

utilize said router module to perform a routing function including routing communication transmissions through the wire network, wherein said connectivity device includes a central processing unit configured to communicate with said hub module located within said connectivity device and said switch module located within said connectivity device, said repeater module configured to perform a repeater function including amplifying communication transmissions to extend a distance between the communications devices, said hub module configured to perform a hub function including bringing segments of the wire network together, and said switch module configured to perform a switching function including reducing communication collisions by providing communication transmissions from the communications devices with independent paths through the wire network, and said connectivity device configured to integrate a first function set and a second function set, wherein the first function set includes a print function other than the hub function, the switching function, the routing function, and the repeater function, and the second function set includes at least one of the hub function, the switching function, the routing function, and the repeater function.

15. (original) A network connectivity device in accordance with Claim 14 further configured to connect at least one communication device to a wire network.

16. (original) A network connectivity device in accordance with Claim 14 further configured to function in a network system comprising at least one of a network hub, a network switch, a network repeater, and a network router.

17. (original) A network connectivity device in accordance with Claim 14 further configured to function in a network system having a topology comprising at least one of a daisy-chain configuration, a ring configuration and a star configuration.

18. (original) A network connectivity device in accordance with Claim 14 further configured to be at least one of a network fault tolerant device and a network fault tolerant management device.

19. (original) A network connectivity device in accordance with Claim 14 further configured to enable SPOC capabilities with a network system.

20. (original) A network connectivity device in accordance with Claim 14 wherein said connectivity device is a network node utilized in a communications network system comprising a plurality of communications devices interconnected by a wire network.

21. (previously presented) A method in accordance with Claim 1 wherein said integrating, within the connectivity device, the first function set and the second function set comprises integrating, within a circuit card, the first function set and the second function set.

22. (currently amended) A method in accordance with Claim 1 wherein the first function set includes ~~at least one of a print function and a programming~~ function.